

4.2.A. 0602000101 (Tennessee River).

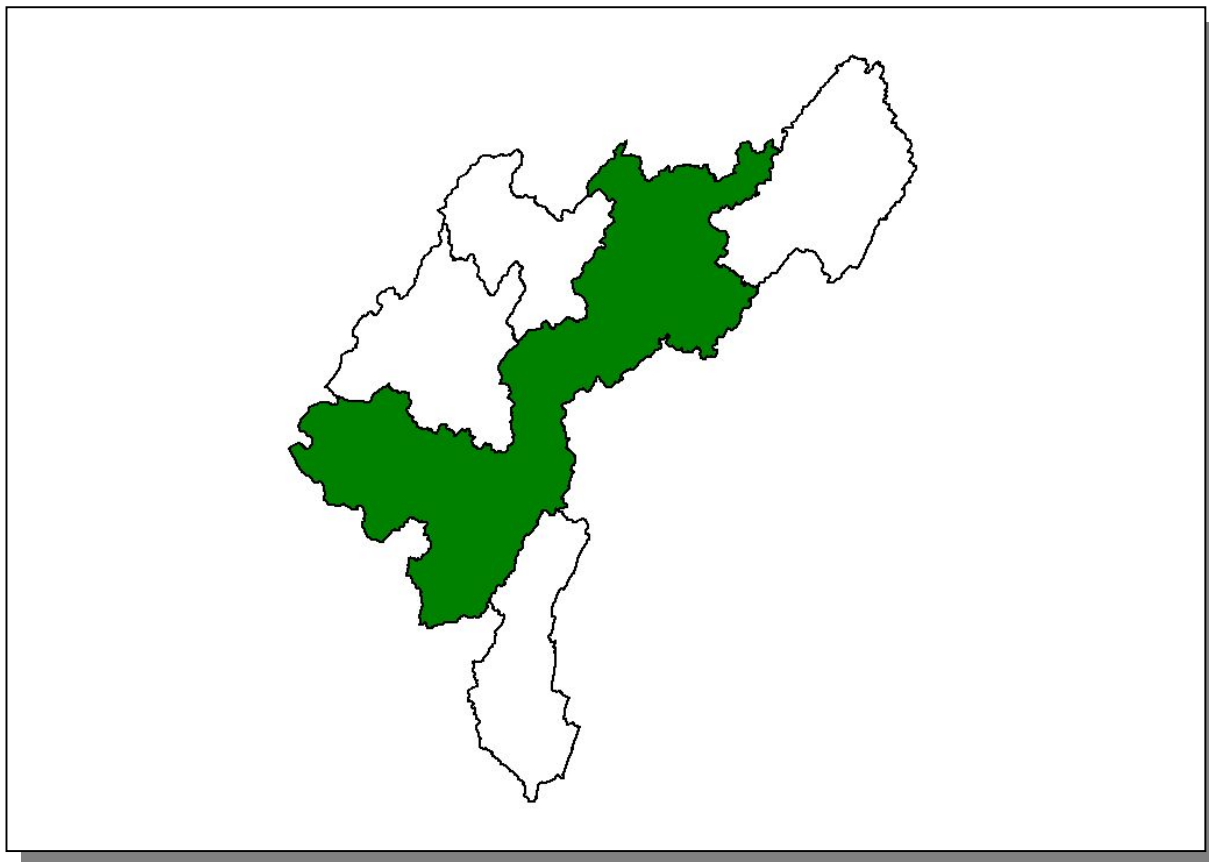


Figure 4-2. Location of Subwatershed 0602000101. All Lower Tennessee River HUC-10 subwatershed boundaries are shown for reference.

4.2.A.i. General Description.

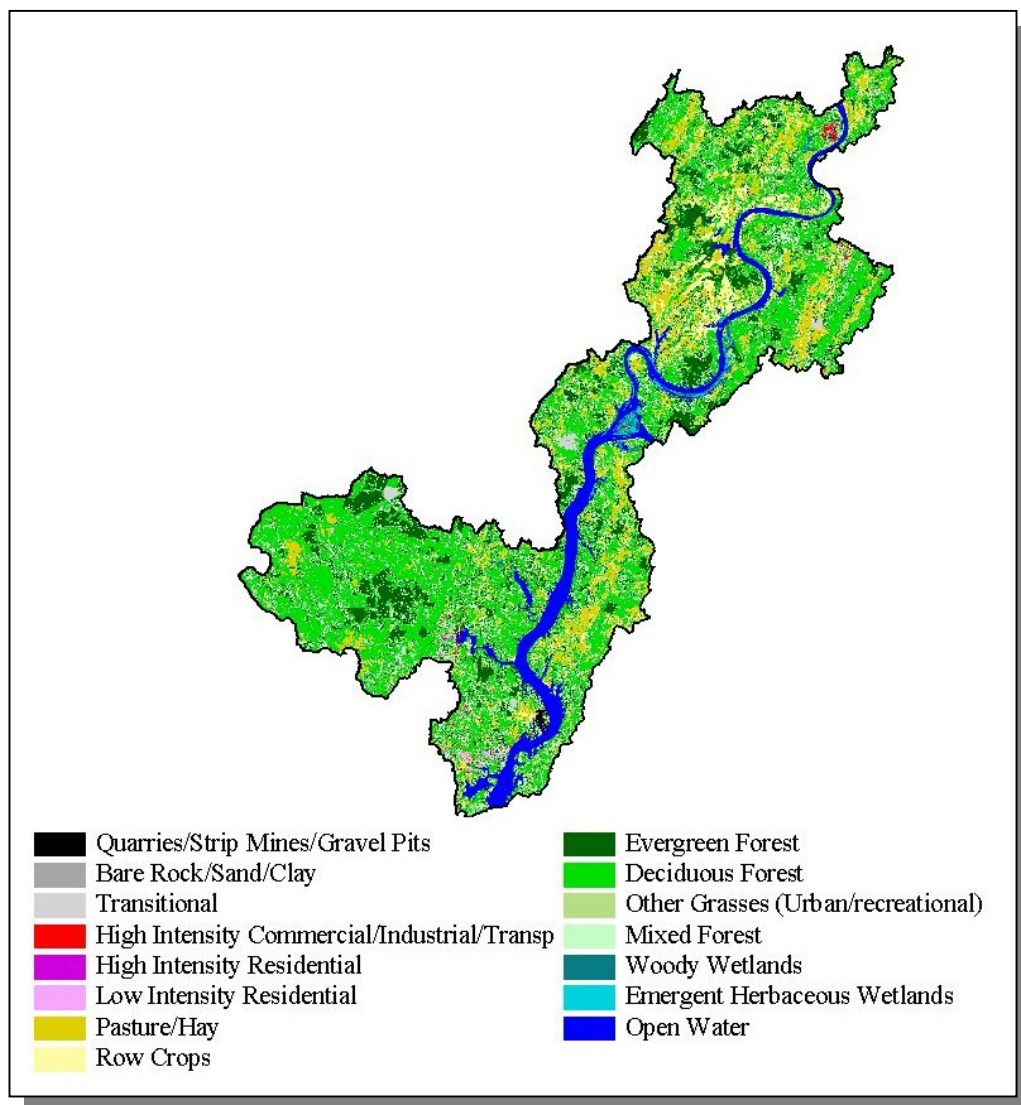


Figure 4-3. Illustration of Land Use Distribution in Subwatershed 0602000101.

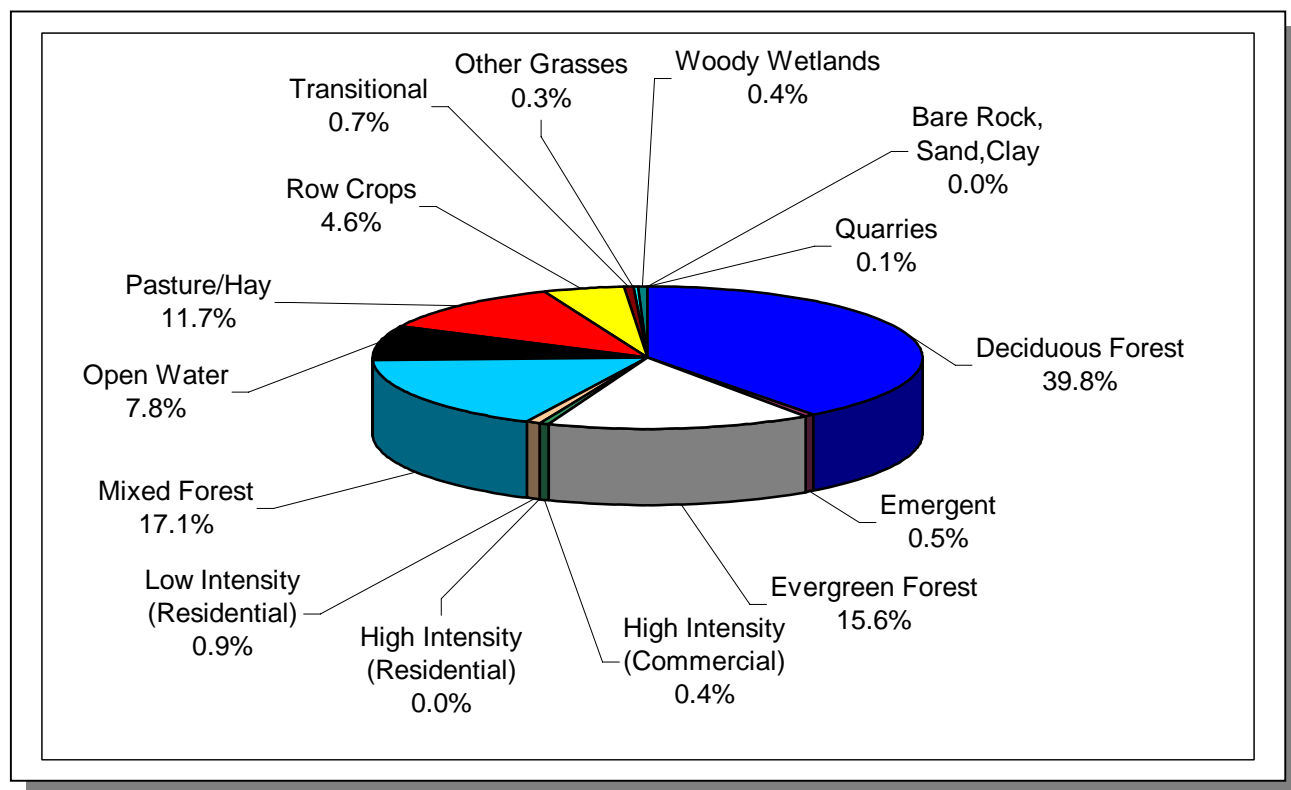


Figure 4-4. Land Use Distribution in Subwatershed 0602000101. More information is provided in Appendix IV.

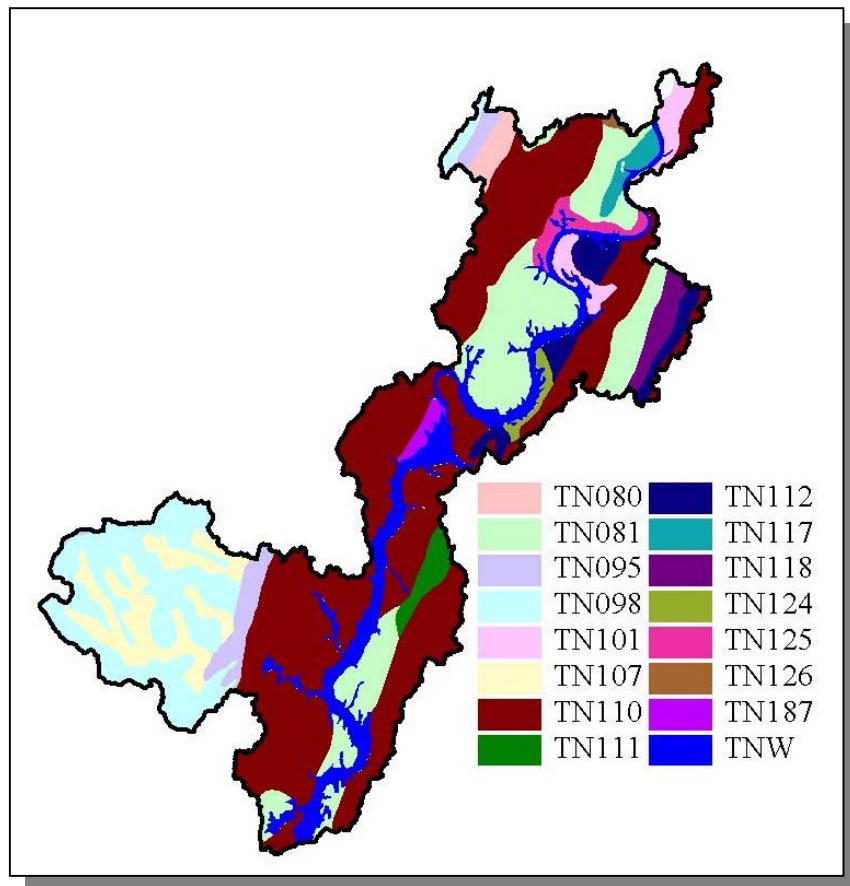


Figure 4-5. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0602000101.

| STATSGO MAP UNIT ID | PERCENT HYDRIC | HYDROLOGIC GROUP | PERMEABILITY (in/hour) | SOIL pH | ESTIMATED SOIL TEXTURE | SOIL ERODIBILITY |
|------------------------|-------------------|---------------------|---------------------------|------------|---------------------------|---------------------|
| TN080 | 1.00 | C | 1.38 | 5.16 | Loam | 0.35 |
| TN081 | 5.00 | C | 1.41 | 5.48 | Silty Loam | 0.35 |
| TN095 | 0.00 | B | 2.35 | 5.12 | Loam | 0.31 |
| TN098 | 1.00 | C | 3.98 | 4.82 | Loam | 0.32 |
| TN101 | 0.00 | B | 1.71 | 5.39 | Loam | 0.35 |
| TN107 | 1.00 | C | 6.34 | 4.84 | Loam | 0.28 |
| TN110 | 0.00 | B | 2.22 | 4.69 | Loam | 0.31 |
| TN111 | 0.00 | C | 1.41 | 5.10 | Loam | 0.34 |
| TN112 | 6.00 | C | 2.36 | 5.09 | Loam | 0.35 |
| TN117 | 6.00 | C | 2.06 | 5.16 | Loam | 0.37 |
| TN118 | 0.00 | C | 6.52 | 5.12 | Loam | 0.29 |
| TN124 | 0.00 | B | 1.77 | 5.33 | Loam | 0.33 |
| TN125 | 0.00 | C | 8.50 | 5.00 | Sandy Loam | 0.20 |
| TN126 | 19.00 | C | 1.30 | 5.12 | Loam | 0.33 |
| TN187 | 0.00 | B | 1.26 | 5.12 | Loam | 0.27 |

Table 4-2. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0602000101. More details are provided in Lower Tennessee Appendix IV.

| County | COUNTY POPULATION | | | Portion of Watershed (%) | ESTIMATED POPULATION IN WATERSHED | | | % Change (1990-1997) |
|---------------|-------------------|----------------|----------------|--------------------------|-----------------------------------|---------------|---------------|----------------------|
| | 1990 | 1997 | 2000 | | 1990 | 1997 | 2000 | |
| Bledsoe | 9,669 | 10,650 | 12,367 | 1.28 | 124 | 137 | 159 | 28.2 |
| Hamilton | 285,536 | 194,856 | 307,896 | 25.7 | 73,397 | 75,795 | 79,145 | 7.8 |
| McMinn | 42,383 | 46,000 | 49,015 | 0.02 | 7 | 7 | 8 | 143 |
| Meigs | 8,033 | 9,690 | 11,086 | 3,222 | 2,588 | 3,122 | 3,572 | 38.0 |
| Rhea | 24,344 | 27,672 | 28,400 | 28.05 | 6,829 | 7,762 | 7,966 | 16.6 |
| Sequatchie | 8,863 | 10,119 | 11,370 | 9.09 | 806 | 920 | 1,034 | 28.3 |
| Totals | 378,828 | 398,996 | 420,134 | | 83,751 | 87,743 | 91,884 | 9.7 |

Table 4-3. Population Estimates in Subwatershed 0602000101.

| | | | NUMBER OF HOUSING UNITS | | | |
|-----------------|----------|---------------|-------------------------|--------------|--------------|-----------|
| Populated Place | County | Population | Total | Public Sewer | Septic Tank | Other |
| Dayton | Rhea | 5,671 | 2,306 | 1,710 | 596 | 0 |
| Decatur | Meigs | 1,361 | 550 | 387 | 159 | 4 |
| Lakesite | Hamilton | 781 | 326 | 65 | 261 | 0 |
| Soddy-Daisy | Hamilton | 8,240 | 3,356 | 305 | 2,998 | 53 |
| Totals | | 16,053 | 6,538 | 2,467 | 4,014 | 57 |

Table 4-4. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 0602000101.

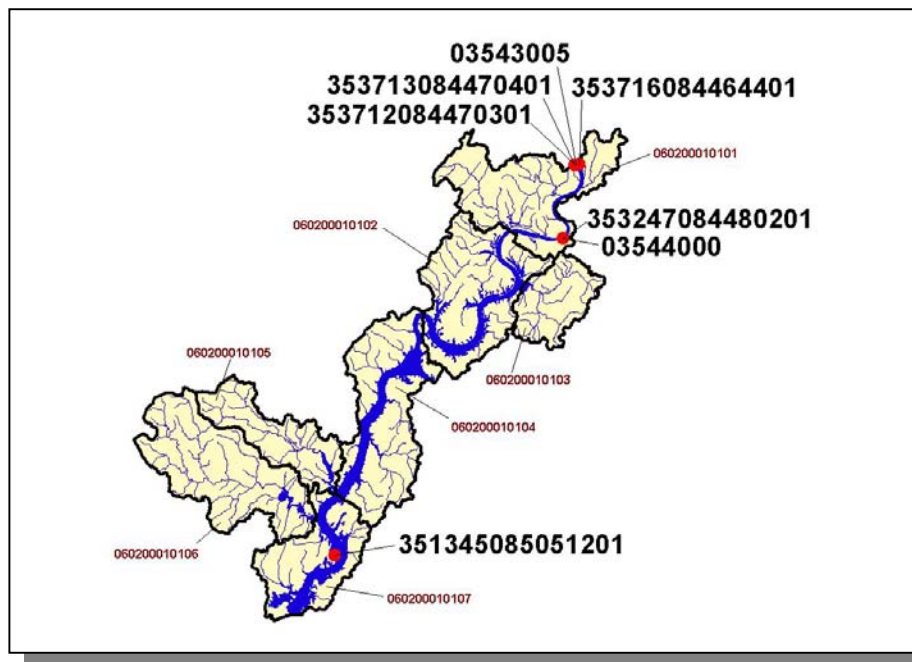


Figure 4-6. Location of Historical Streamflow Data Collection Sites in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106 and 060200010107 boundaries are shown for reference. More information is provided in Appendix IV.

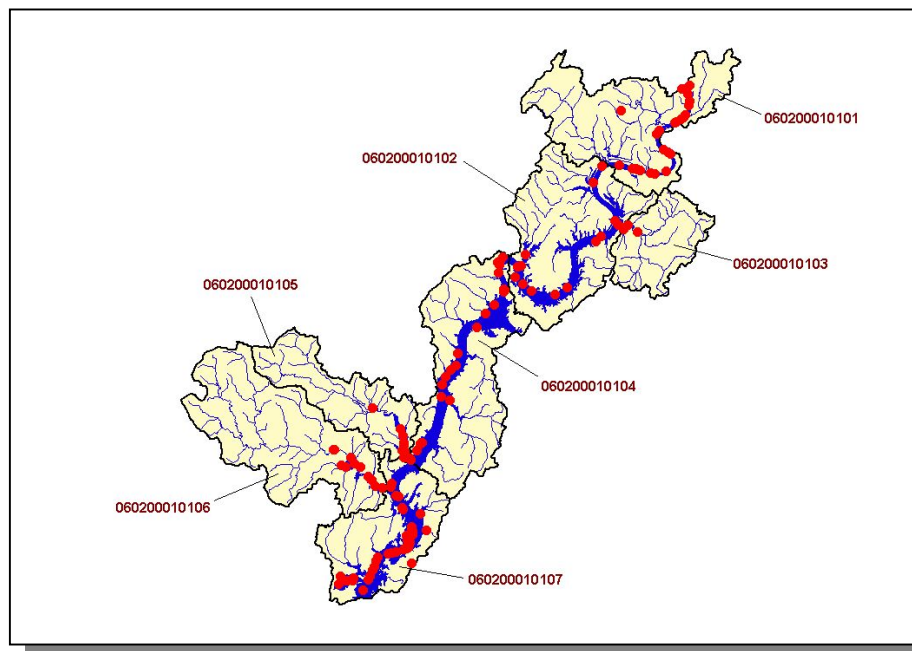


Figure 4-7. Location of STORET Monitoring Sites in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including site names and locations, is provided in Appendix IV.

4.2.A.ii Point Source Contributions.

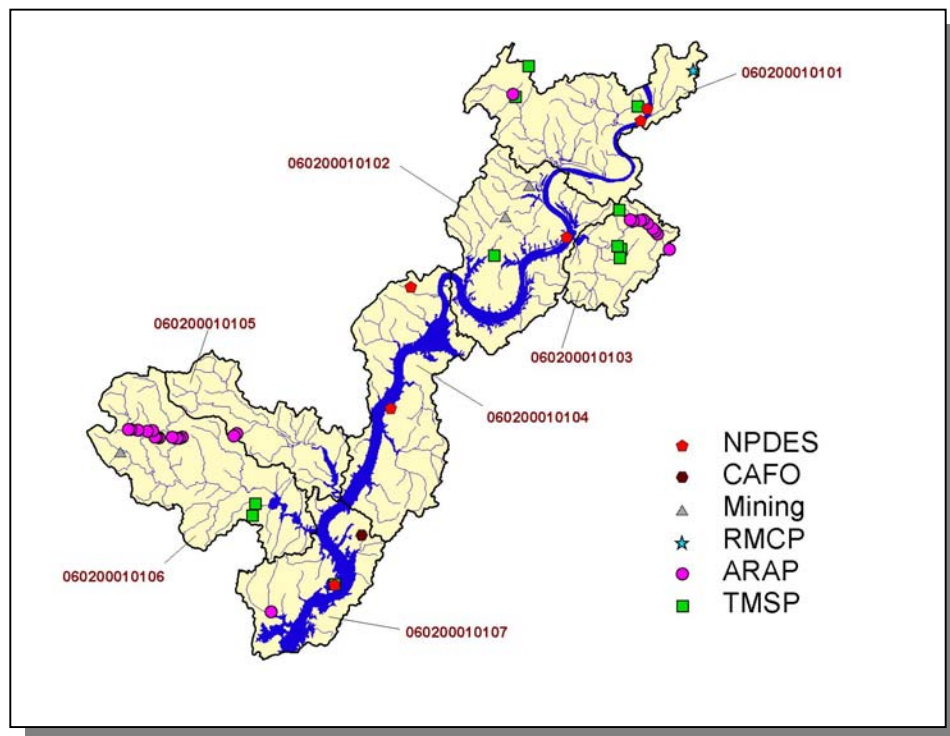


Figure 4-8. Location of Active Point Source Facilities in Subwatershed 0602000101. Subwatershed 0602000101, 0602000102, 0602000103, 0602000104, 0602000105, 0602000106, and 0602000107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

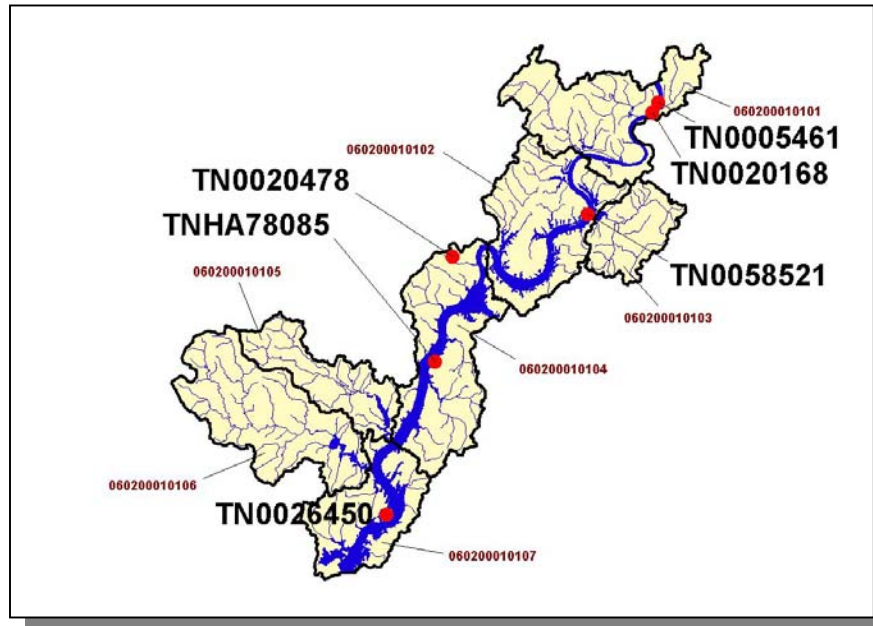


Figure 4-9. Location of NPDES Facilities in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

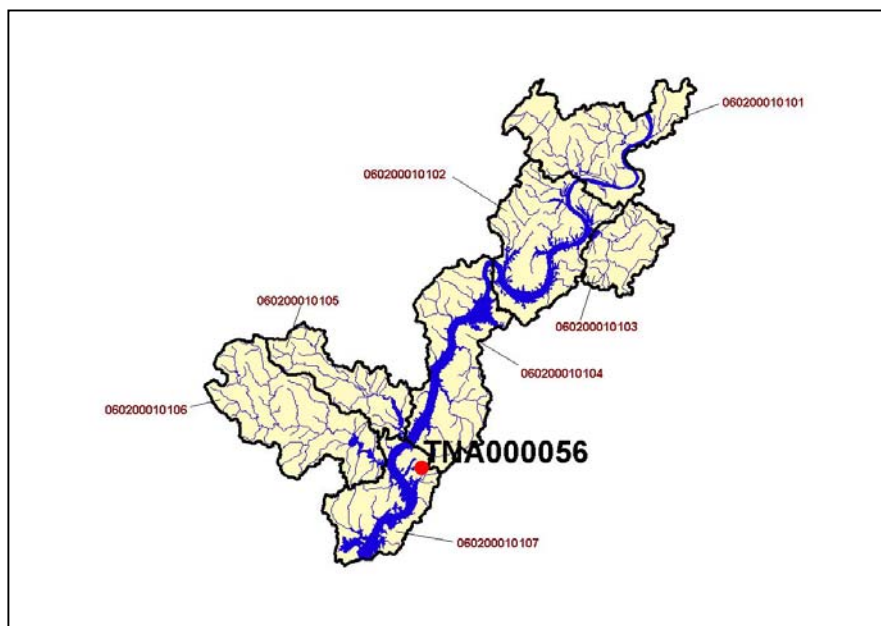


Figure 4-10. Location of Concentrated Animal Feeding Operations (CAFO) in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

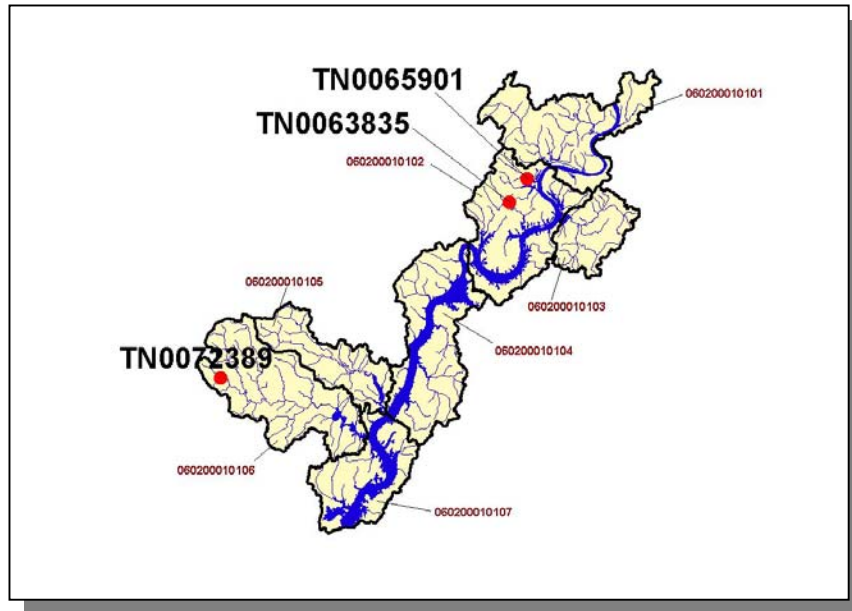


Figure 4-11. Location of Active Mining Facilities in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

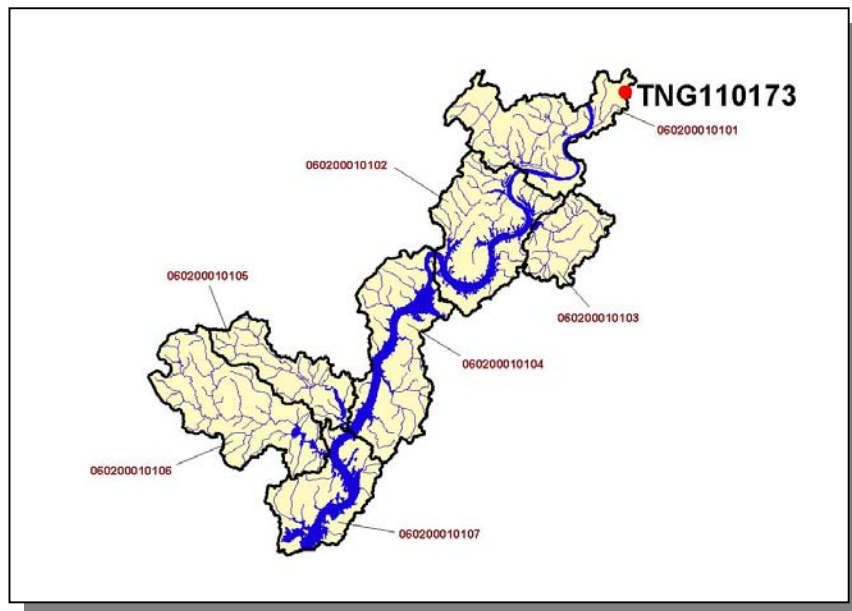


Figure 4-12. Location of Ready Mix Concrete Plants in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

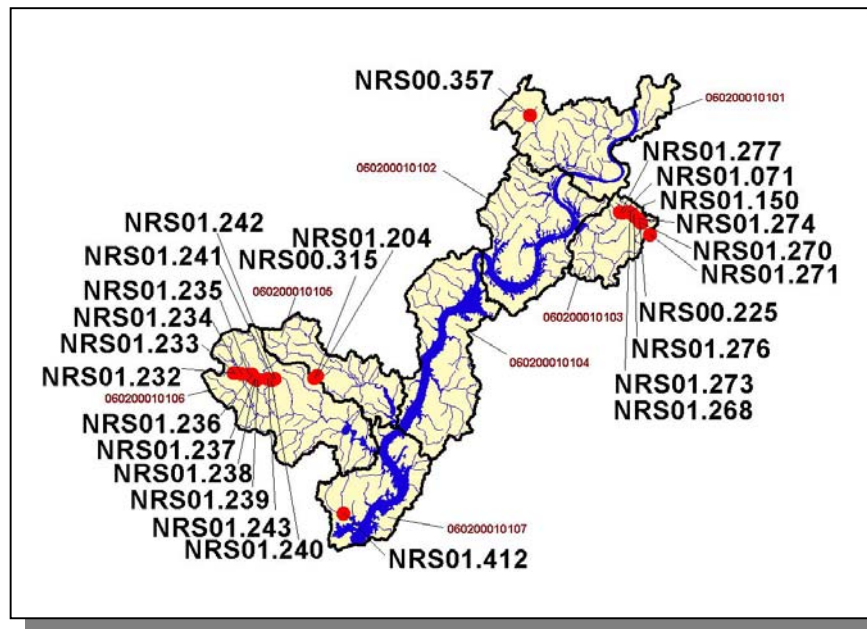


Figure 4-13. Location of ARAP Sites (Individual Permits) in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

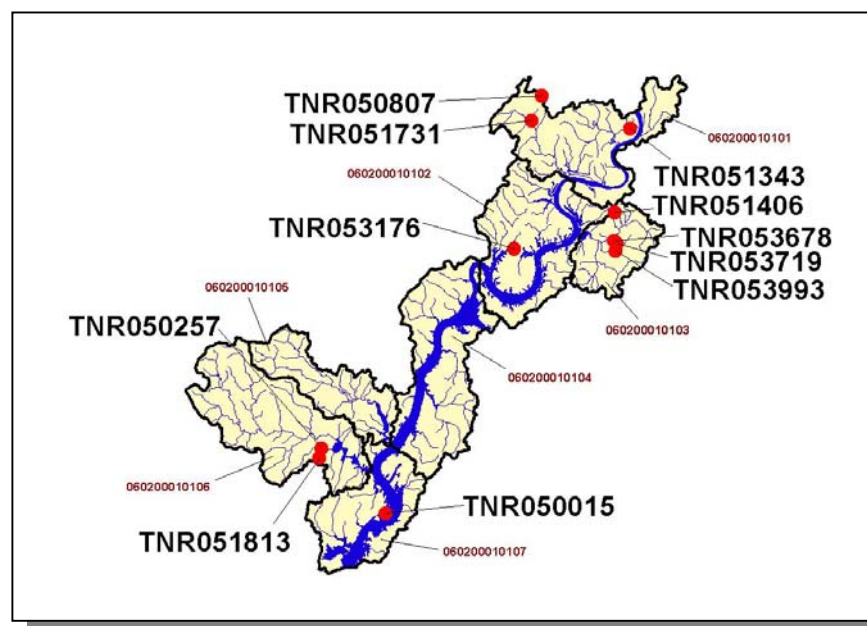


Figure 4-14. Location of TMSP Facilities in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

4.2.A.ii.a. Dischargers to Water Bodies Listed on the 2002 303(d) List

There are two NPDES facilities discharging to water bodies listed on the 2002 303(d) list in Subwatershed 0602000101:

- TN0058521 (Decatur STP) discharges to Tennessee River @ RM 514.8
- TN0020478 (Dayton STP) discharges to Tennessee River @ RM 504

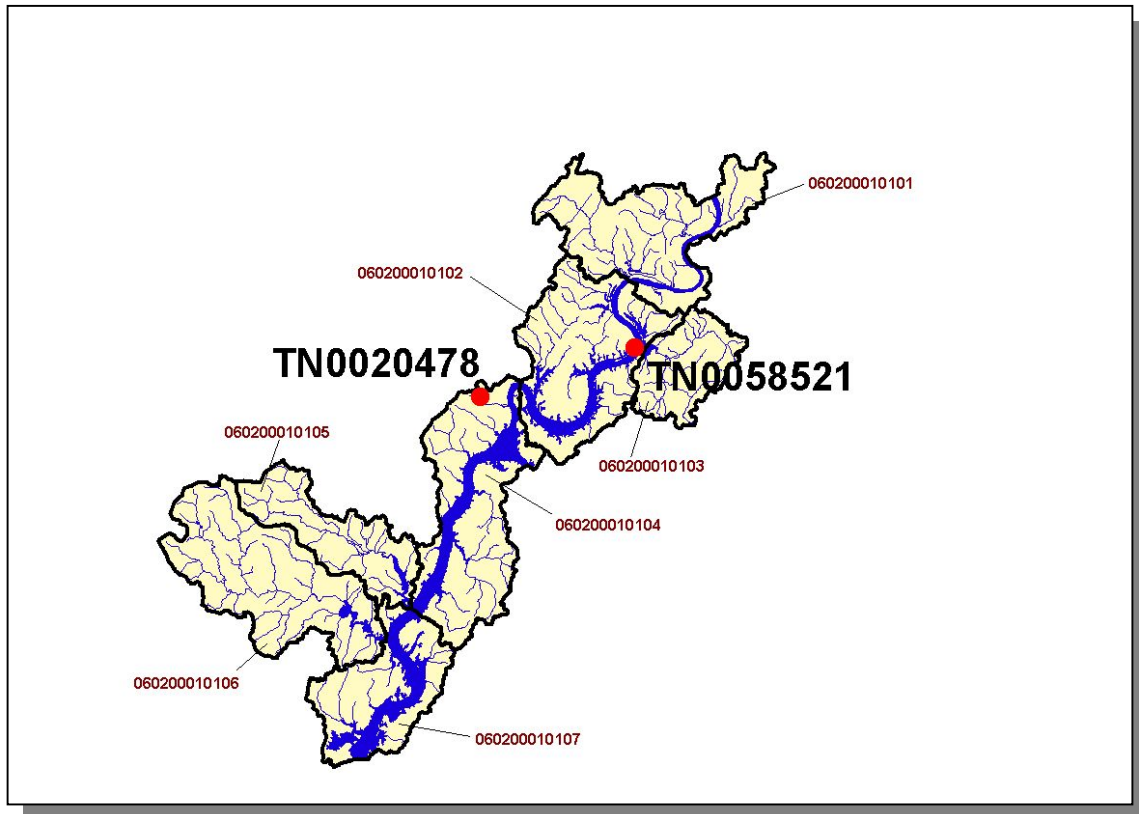


Figure 4-15. Location of NPDES Dischargers to Water Bodies Listed on the 2002 303(d) List in Subwatershed 0602000101. Subwatershed 060200010101, 060200010102, 060200010103, 060200010104, 060200010105, 060200010106, and 060200010107 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

| PERMIT # | 1Q10 | 3Q10 | 7Q10 | 3Q20 | QDESIGN |
|-----------|-------|-------|-------|-------|---------|
| TN0058521 | 3,610 | 4,340 | 4,910 | 3,680 | 0.34 |
| TN0020478 | 3,610 | 4,340 | 4,910 | 3,680 | 2.69 |

Table 4-5. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0602000101. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

| PERMIT # | CBOD ₅ | FECAL COLIFORM | TRC | TSS | SETTLEABLE SOLIDS | DO | pH |
|-----------|-------------------|----------------|-----|-----|-------------------|----|----|
| TN0058521 | X | X | X | X | X | X | X |
| TN0020478 | X | X | X | X | X | X | X |

Table 4-6. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0602000101. CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

4.2.A.iii. Nonpoint Source Contributions.

| LIVESTOCK (COUNTS) | | | | | | |
|---------------------------|--------|----------|-------------------|--------------------------|------|-------|
| Beef Cow | Cattle | Milk Cow | Chickens (Layers) | Chickens (Broilers Sold) | Hogs | Sheep |
| 5,385 | 11,560 | 658 | 20 | 298,515 | 560 | 28 |

Table 4-7. Summary of Livestock Count Estimates in Subwatershed 0602000101. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

| County | INVENTORY | | REMOVAL RATE | |
|--------------|---------------------------------|---------------------------------|---------------------------------------|-----------------------------------|
| | Forest Land (thousand acres) | Timber Land (thousand acres) | Growing Stock (million cubic feet) | Sawtimber (million board feet) |
| Bledsoe | 186.2 | 186.2 | 0.9 | 2.3 |
| Hamilton | 210.7 | 210.7 | 2.2 | 6.0 |
| Meigs | 83.0 | 83.0 | 0.2 | 0.0 |
| Rhea | 126.5 | 126.4 | 1.7 | 4.7 |
| Total | 606.4 | 606.3 | 5.0 | 13.0 |

Table 4-8. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 0602000101.

| CROPS | TONS/ACRE/YEAR |
|---------------------------------------|-----------------------|
| Grass (Pastureland) | 0.39 |
| Legumes (Pastureland) | 0.77 |
| Grass (Hayland) | 2.02 |
| Legumes, Grass (Hayland) | 0.17 |
| Grass, Forbs, Legumes (Mixed Pasture) | 0.31 |
| Forest Land (Not Grazed) | 0.00 |
| Forest Land (Grazed) | 0.00 |
| Corn (Row Crops) | 3.67 |
| Soybeans (Row Crops) | 4.10 |
| Tobacco (Row Crops) | 5.65 |
| All Other Row Crops | 4.45 |
| Oats (Close-Grown Cropland) | 3.13 |
| Wheat (Close-Grown Cropland) | 5.15 |
| All Other Close-Grown Cropland) | 1.99 |
| Non-Agricultural Land Use | 0.00 |
| Conservation Reserve Program Lands | 1.00 |
| Other Land in Farms | 0.00 |
| Farmsteads and Ranch Headquarters | 0.20 |

Table 4-9. Annual Estimated Total Soil Loss in Subwatershed 0602000101.